

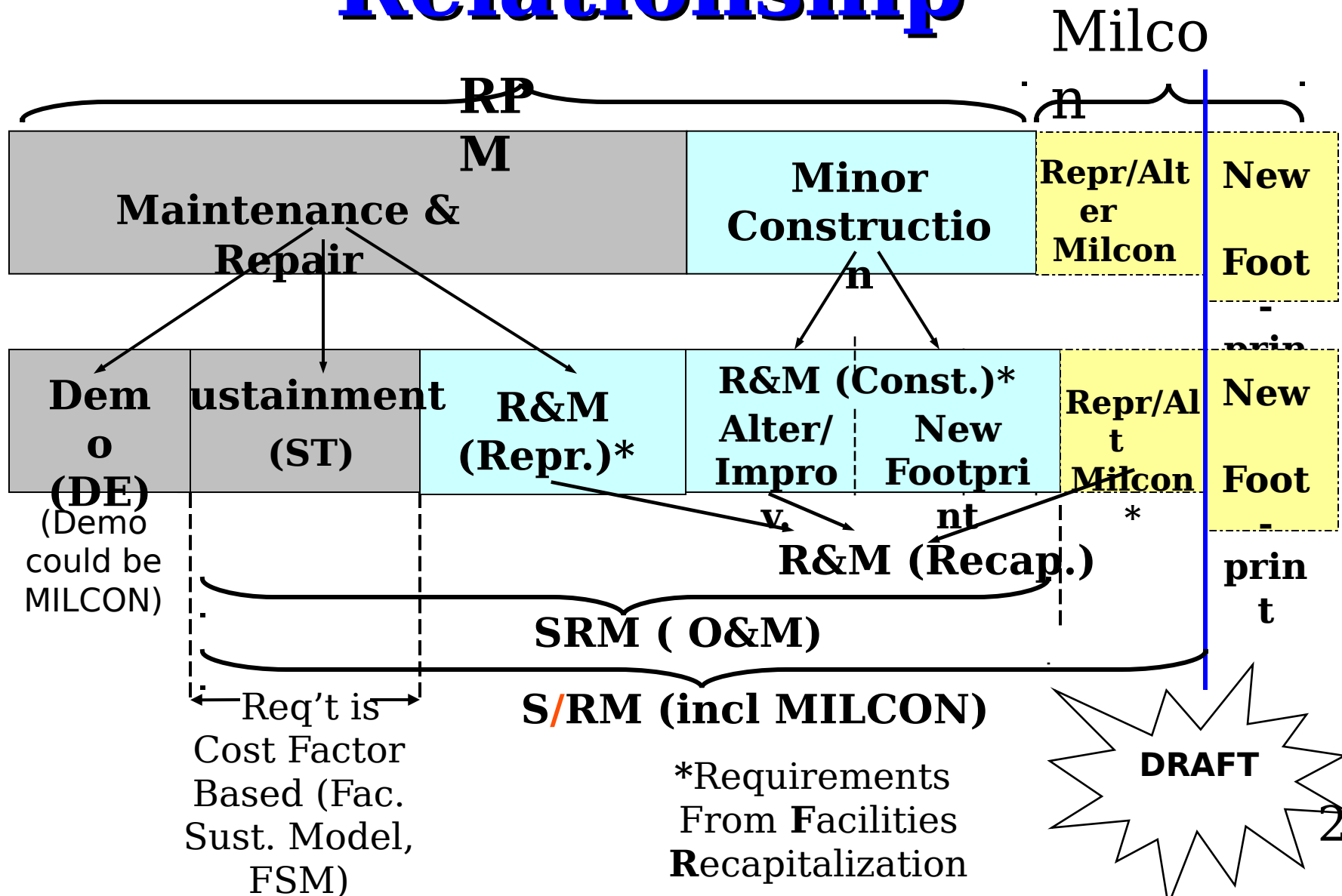
S/R
Sustainment &
Restoration and
Modernization (R&M)
The Big Fat BOS and
MILCON Wedding



Updated Aug. 2003

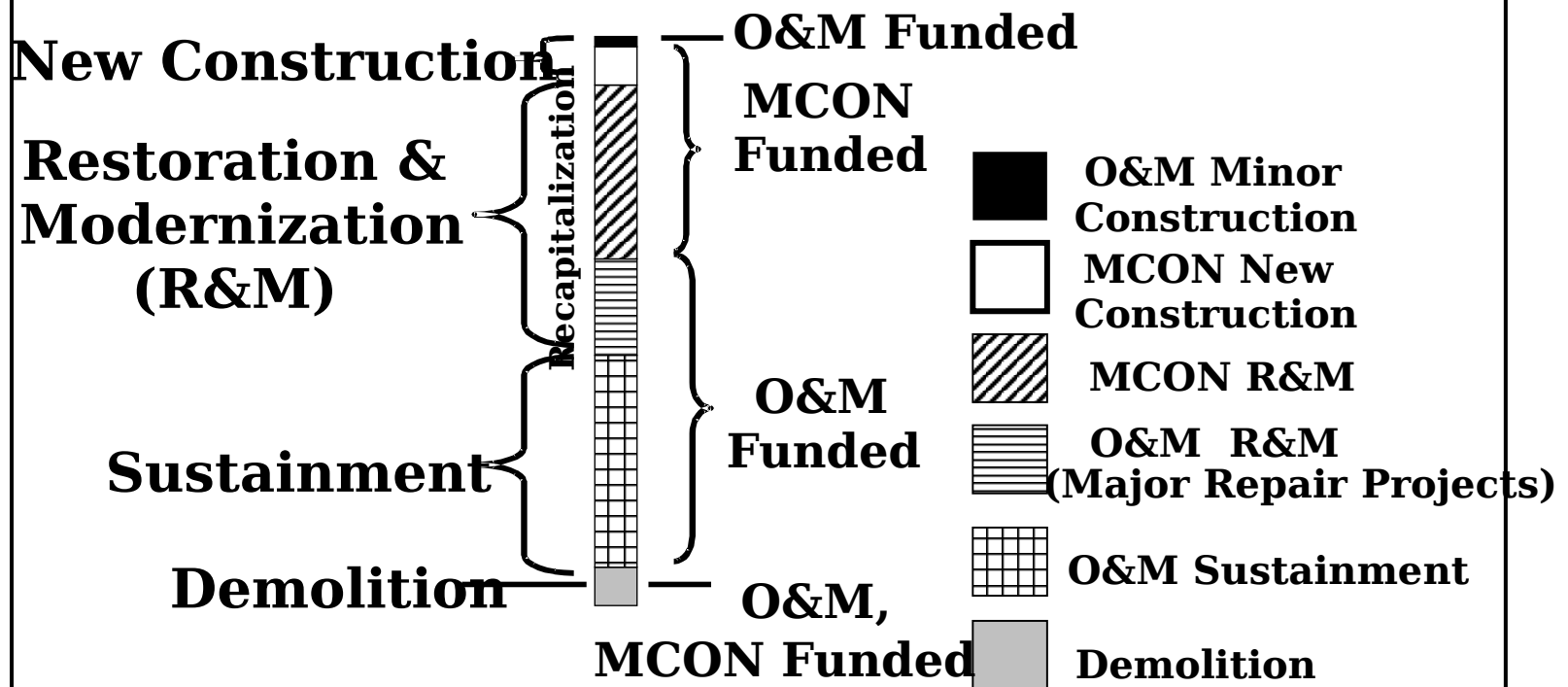


RPM - S/RM Relationship



**DoD VERSION OF THE PREVIOUS SLIDE - fails to
incl. alter/improv in existing facs.(OMN and
MCON)**

Elements of Total Facility Investment



PE XXXXX78X (old M&R PE)

Facilities Sustainment

Provides resources for maintenance and repair activities necessary to keep an inventory of facilities in good working order. Includes regularly scheduled adjustments and inspections, preventive maintenance tasks, and emergency response and service calls for minor repairs.

Also includes major repairs or replacement of facility components (usually accomplished by contract) that are expected to occur periodically throughout the life cycle of **facilities**. This work includes regular roof replacement, refinishing of wall surfaces, repairing and replacement of heating and cooling systems, replacing tile and carpeting, and similar types of work.

It does not include certain restoration, modernization, and environmental compliance costs which are funded elsewhere. Other tasks associated with facilities operations (such as

(old Min. Const. PE)

Restoration & Modernization

Provides resources for improving facilities. **Restoration** includes repair and replacement work to restore damaged facilities due to failure attributable to inadequate sustainment, excessive age, natural disaster, fire, accident, or other causes. **Modernization** includes alteration of facilities to implement new or higher standards (including regulatory changes), to accommodate new functions, or to replace building components that typically last more than 50 years (such as foundations and structural members).

Restoration and modernization does not include recurring sustainment tasks or certain environmental measures (such as removal of asbestos and lead paint), which are funded elsewhere. Other tasks associated with facilities operations (such as custodial services, grass cutting, and the provision of central utilities) are also not included. R&M does NOT include

Recapitalization

Major renovation or reconstruction activities (including facility replacements) needed to keep existing facilities modern and relevant in an environment of changing standards and missions. Recapitalization extends the service life of facilities or restores lost service life. It includes the restoration and modernization of existing facilities but **not** the acquisition of (new footprint) facilities or the demolition of old ones (unless demolition is carried out as part of a renovation project or in conjunction with construction of replacement footprint **elsewhere***). Recapitalization involves existing facilities only.

* “other locations”

Where are

- SJOs *excluding* Grounds Maintenance ? (Sustainment, yes)
- FMED ? (Sustainment, yes *for now*)
- Maint. Shop Overhead ? (Sust., yes *for now*)
- Maint. Dredging ? (usually Sustainment - but not officially included in the FSM)
- Demolition ? (Separate component)
- KEY for '03: Preventive Maint. xfer'd from OBOS to SRM; Grounds Maint. xfer'd from old RPM to OBOS

RESULT: Facility Investment/Divestment Strategy

FOUR

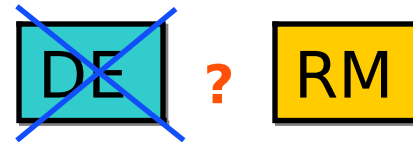
COMPONENTS:

- Sustainment (SF) – Sustain inventory at acceptable level
- Restoration and Modernization (RM) – Restore/Replace facilities & modernize
- Demo (DE) – Demo/Dispose
- New Footprint (NF) – New construction

NEW SRM SIIs MAP TO IMAP SFAs and FUND STREAM; CLEARS UP ALL QUESTIONS EXCEPT ONE:

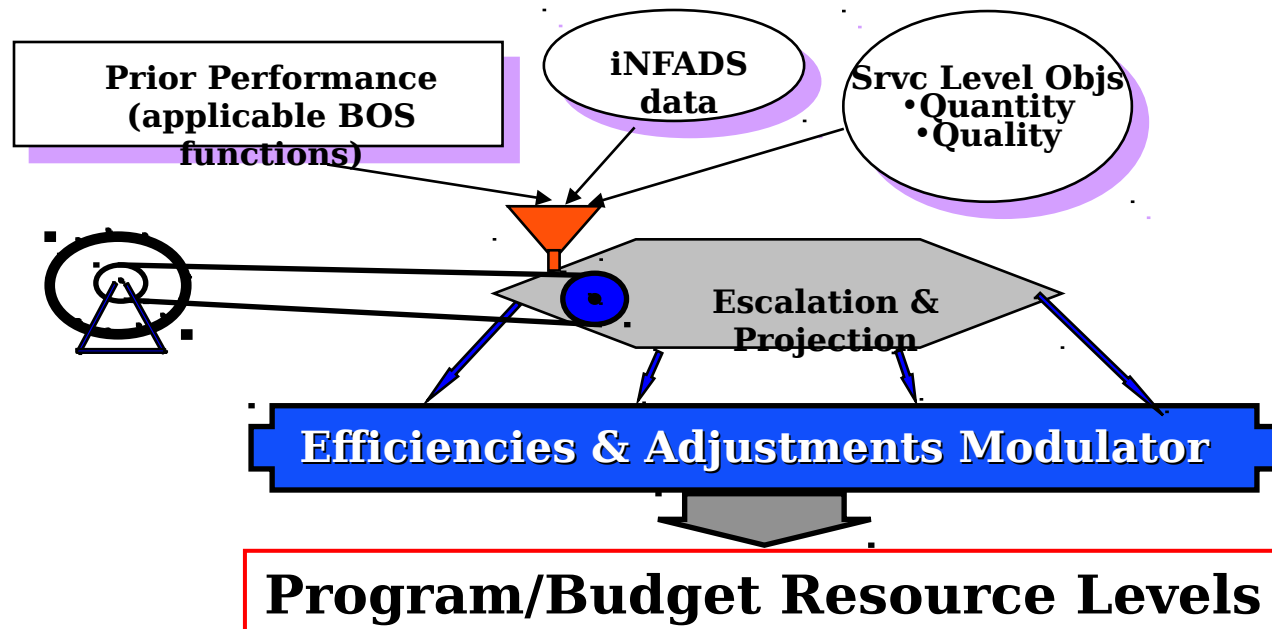
WHICH SII ?

- All installation funded
Demo work
(Assume all
installation funded
demo is SII RM; SII DE
is only NAVFAC
CENTRALLY MANAGED
PROGRAM)



Why Performance Models ?

- Nov 02 SECNAV guidance:
 - “To the maximum extent possible, performance models should be employed to determine near-term operating resource requirements of the Department”
 - Selects Base Support as a “Candidate Operational Performance Model for FY 2005 Cycle”



Base Support Performance Models

- Air Operations
- Port Operations
- Supply
- MWR
- Fleet and Family Support Program
- Bachelor Quarter Ops
- **Utilities**
- **Facility Management**
- **Facility Services**
- **Base Support Vehicles and Equipment**
- Federal Fire
- Information Technology

SRM excluded because FSM and FRM accepted as valid “models”

... Next Slides



Facilities Sustainment Model (FSM) Intent

- Improve SRM (RPM) requirements validity & generation process
- Provide a standardized tool for SRM assessment – all of DoD
- Clearly articulate impact of inadequate resources
- RPM metrics were “not very satisfying”
- Tie budget requirement to industry standards to improve credibility, auditability
- Reduce SRM fund migration
- Model adj. for outyears – Cofer RPI Forecast

FSM Concept



- Categorizes all facilities using standard DoD categories and common units of measure
- Obtain accurate quantities for each facility category at each location (currently uses EACH CatCode in multi-use fac.)
- Uses standard commercial unit costs (“industry standards”) where possible for annual sustainment of each facility category
- Uses standard area cost factors
- Distributes facility quantities by responsible organization (?)
- Computes standard sustainment cost for the inventory
 - Unit Quant. x Unit Cost (DoD Fac. Pricing Guide) x Area CF x Inflation
- Removes excess/underutilized facilities from FSM requirement
- Only **part** of total SRM Requirement
- Does NOT currently use Maint. UIC





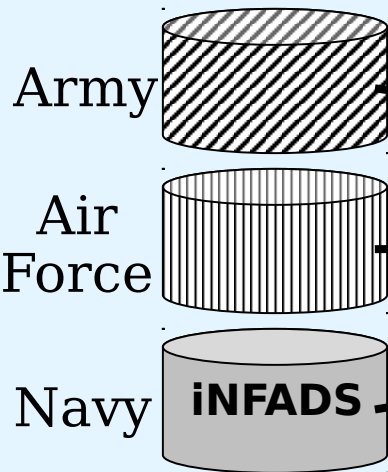
Facilities Sustainment Model

www.whitestonerresearch.com/secure/definition.php

$$\text{Sustainme} = (\text{Qty}_i * \text{Unit Cost}) + \dots$$

Filters and Business Rules

Facilities Assets Data (FAD)



Area Costs

DoD Facilities Pricing Guide (Version x.x)

Benchmarks (Commercial, etc.) Means
State Govt.
Whitestone
...

Real Property Inventories

Cost Factors

SAMPLE FACILITIES SUSTAINMENT MODEL OUTPUT :

01/06/03

FACILITIES PRIMARY UIC REPORT - NAVY

DB Ver 27-JUN-02

FACILITY ANALYSIS CATEGORY

SW Ver 27-JUN-02

Run report for
different fund
sources or all

NAS SAMPLE

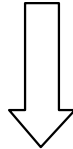
FY 2005

REPORT NAME: Primary Installation/UIC (FSM-04)

O&M
SUST N

FAC	DESC.	SUPPORTED ASSETS	UM	(\$ M)
1111	Fixed Wing Runway, Surfaced	139027 SY		0.22
1112	Rotary Wing Landing Area, Surfaced	1374 SY		0
1121	Taxiway, Surfaced	122612 SY		0.14
1131	Aircraft Apron, Surfaced	266076 SY		0.31
1161	Compass Calibration Pad, Surfaced	1125 SY		0
1163	Aircraft Washing Pad, Surfaced	2434 SY		0
1164	Miscellaneous Airfield Pavement, Surfaced	1948 SY		0
1167	Aircraft Rinse Fac.	1710 SY		0
1211	Aircraft Fueling Fac.	1302 GM		0.01
1231	Vehicle Fueling Fac.	3 OL		0
1241	Operating Fuel Storage	32940 GA		0

Includes Area Cost
Factor and Inflation



8451	Water Distribution Line, Non-Potable	31700 LF		0.03
8511	Road, Surfaced	147150 SY		0.19
8521	Vehicle Parking, Surfaced	173998.61 SY		0.23
8524	Sidewalk And Walkway	41831 SY		0.04
8526	Miscellaneous Paved Area	20806 SY		0.03
8711	Storm Drainage	14009 LF		0
8721	Fence And Wall	64028 LF		0.02
8910	Utility Bldg.	32634 SF		0.12
8926	Hazardous Waste Storage or Disposal Fac.	1 EA		0.01
8929	Miscellaneous Utility Facs.	29 EA		0.01

TOTAL

11.4

Restoration and Modernization (RM)

- Restoration & Modernization (RM) = investment beyond sustainment i.e., Major Repair Projects, Minor Const., **and** Repair MILCON
- Proposed method for determining RM part of Total reqm't : **Facilities Recapitalization Metric** (next slides) :

a) R&M(Repair) Projs. (includes Demo) & Alter./Improv. from AIS

b) **R&M** Recap projs. from IRRS (New Footprint Report)

AIS, iNFADS, & Claimant/Region p
MUST be accurate, complete, and in

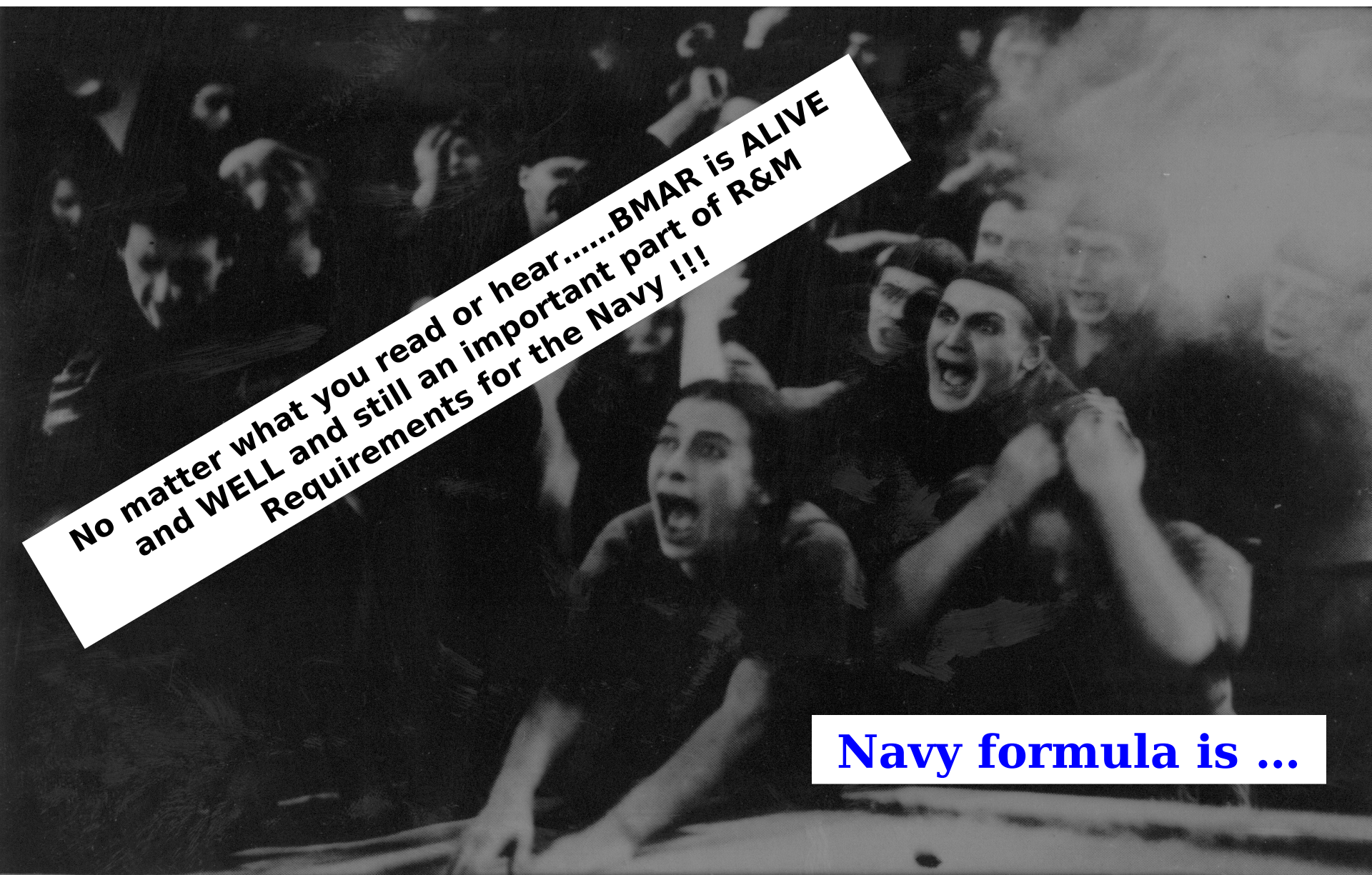


FRM is born; BMAR dies ...or does it ?

Facilities Recapitalization Metric “study” (Aug. 22, 2002) conducted at the request of OUSD (Comptroller) says “In April 2002 the recapitalization front-end assessment was launched to complete the work begun in 1999. The 1999 front - end assessment resulted in a dissection and revitalization of the programs, metrics, terminologies, and account structures used by DoD to sustain, restore, and modernize facilities. “Real Property maintenance” was carefully separated into measurable elements.... The “BMAR” metric was permanently retired..... This earlier work allowed for a “cross-appropriation” view of facilities recapitalization that reflected the combined effects of **O&M, working capital, and military construction resources. More broadly, It resulted in a new **“S/RM”** construct for analyzing and budgeting for sustainment, restoration, and modernization.”**

Installations Community

Learning of the Death of RPM and BMAR



No matter what you read or hear.....BMAR is ALIVE
and WELL and still an important part of R&M
Requirements for the Navy !!!

Navy formula is ...

Facilities Recapitalization Metric (FRM)



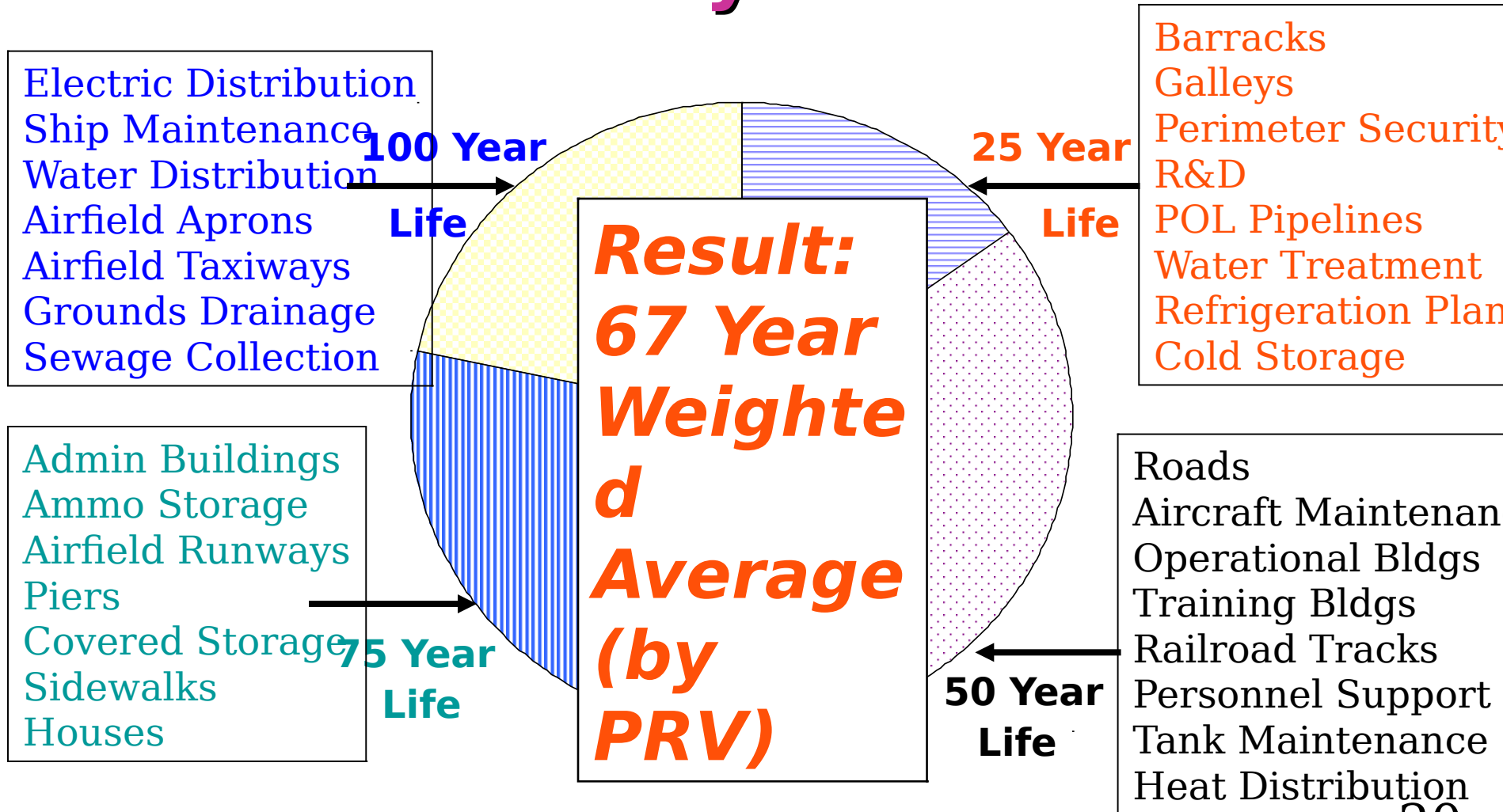
FR
M

- **OUSD:Recapitalization Rate** (yrs) =
$$\frac{\text{Recapitalizable PRV (\$)}}{\text{R\&M Investment (\$/yr)}}$$
- Navy has Two parts: 1) *Recap* PRV 2) Q3/Q4 Projs.
- OUSD **Recap Rate is 67** yrs. Navy formula is:

$$(\text{Recap PRV (all facts.)} / 67) + \text{Q3/Q4 Projs.} = \text{Annual R\&M Invstmnt Reqmnt. (for now).}$$

NOTE: Q3/Q4 Proj. years from AIS
- *Future* Navy formula :
$$(\text{Recap PRV (Q1/Q2 facts.)} / 67) + \text{Q3/Q4 Projs.} = \text{Annual R\&M Invstmnt Reqmnt}$$

Q2 Recapitalization Cycles



FSM / FRM MAJOR PROBLEMS

- **Models may provide Washington with POM/CMP data (macro level) but don't work for installations (DoD FPG says so) and don't translate to executable jobs**
- **Top down approach; Budgets are built from bottom up and the two don't meet**
- **FRM mixes fund sources (MILCON and non-MILCON)**
- **MILCON mixes repair, new footprint, demo, alterations, etc.**
- **No methodology for separating Claimant/Region \$\$ from installation \$\$ - impacts installation metrics**
- **FSM not currently based on maint. UIC**

Bottom Line Up Front

...

**Incomplete, inconsistent,
inaccurate data in RSIPs, AIS,
IRRS,
and iNFADS **may** result in a loss
of adequate SRM and MILCON
dollars to properly fund
installation requirements**

What Can Installations Do?

Accurate and Complete Data

- Update IRRS (Nov.)
- Accurate and complete AIS Report (Sept./Oct. submit)
- Update iNFADS (On-Hand Assets) (continuous)
- Update RSIPs Requirements (Required Real Property) (continuous)

Conversion to Sustainment and RM

- In FY03, RPM Program Elements changed from M&R and Minor Construction to Sustainment and R&M
- Tracking and programming of costs by the new Program Elements requires a new methodology and changes to cost accounts
 - One Methodology - expand/redefine SFC structure (concept rejected; may revisit with CNI)

Proposed Change to SFC Struct./SICs within RPM SAG (need to expand)

Program
Element
S

NE
SFCs

SRM
Functions

NE
SMs

Sustainment
(PE
xxxxx78x)

M
M2

Sustainment below CO's Authority
Sustainment above CO's Authority

ST

NOT APPROVED BY IPT - WILL NOT HAPPEN

Proposed Change to SFC Struc./SICs within RPM SAG (need to expand)

Program Element s	NE SFCs	SRM Functions	NE SMs
R & M (PE xxxxx76x)	M3	R&M(Repair) < CO's Auth. (excl. Antiterr)	RM
	M4	R&M(Repair) > CO's Auth. (excl. Antiterr)	
	T3	R&M (Repair) (Antiterr) < CO's Author.	
	T4	R&M (Repair) (Antiterr) > CO's Author.	
	R1	R&M (Constr.) < CO's Auth. (excl. Antiterr)	
	R2	R&M (Constr.) > CO's Auth. (excl. Antiterr)	
	T1	R&M (Constr.) (Antiterr) < CO's Author.	
	T2	R&M (Constr.) (Antiterr) > CO's Author.	

NOT APPROVED BY IPT - WILL NOT HAPPEN

Proposed Change to SFC Struc./SICs within RPM SAG (need to expand)

Program
Element
s

NE
SFCs

SRM
Functions

NE
SFCs

Restoration
&
Modernizati
on (PE
xxxxx76x)

- K1 New Footprt (Excl. Antiterr) < CO's Auth.
- K2 New Footprt (Excl. Antiterr) > CO's Auth.
- K3 New Footprt (Antiterr) < CO's Authority
- K4 New Footprt (Antiterr) > CO's Authority

NF

NOT APPROVED BY IPT - WILL NOT HAPPEN

Proposed Change to SFC Structure within RPM SAG (need to expand)

**Program
Element
s**

**NE
SFCs**

**SRM
Functions**

**NE
SMs**

**Restoration
&
Modernizati
on (PE
xxxxx76x)**

U1 Demolition below CO's Authority

U2 Demolition above CO's Authority

DE

NOT APPROVED BY IPT - WILL NOT HAPPEN

Required Cost Account Revisions to Convert to ST and RM

(all CAC
revisions will be done via revised IMAP CAC

- **Transfer Preventive Maintenance Inspection (Navy PMI CAC 9280) from OBOS to SRM - Charge to end use 7xxx CAC**
- **E/S CALLS** will also be charged to end use 7xxx CAC
- **CAC SCHEME** is now 7xx_ where “_” is (S)ustainment, (R)estoration & Modern., except CAC 7910; (N)ew Footprint, (D)emo use similar scheme except fewer CACs
- **Transfer grounds maintenance (CACs 7410, 7430 & 7440) from RPM to OBOS - use new CACs 9410, 9430 & 9440 instead of 7410, 7430 & 7440**

Additional Recommendations

- Currently, AT/FP Minor Construction is charged to CACs 6B50 (Physical Security Site Improvements) and 6B51 (CBR Improvements); no CACs for maint. & repair

Current Wash. thinking is all AT/FP will be alter./improv./new const. in nature even though CACs 6B50 & 6B51 descriptions have been revised to include ALL SRM; Will repairs for AT/FP use 7xxx CACs?

6B50/51 must be broken down by DoD “Facilty Type” for BS-1 SOMEHOW.

Other CAC Revisions Required Due to IMAP 2000

- **Delete CAC 1E60 (1ST LT/CBU/Self-Help) and use existing RPM and OBOS CACs.** No need to separately account for these costs if facilities RPM work; use existing RPM CACs. IPT Decision: 1E60 intended primarily for military management of self-help/First LT only.
- **Change new CACs 9922, 99SL & 99H5 (Leased BQs) to 9325, 9330, 9335 which are closer to CAC 9320 (Rentals/Leases/Easement of Real Property)**

Shot down at IMAP Conference.

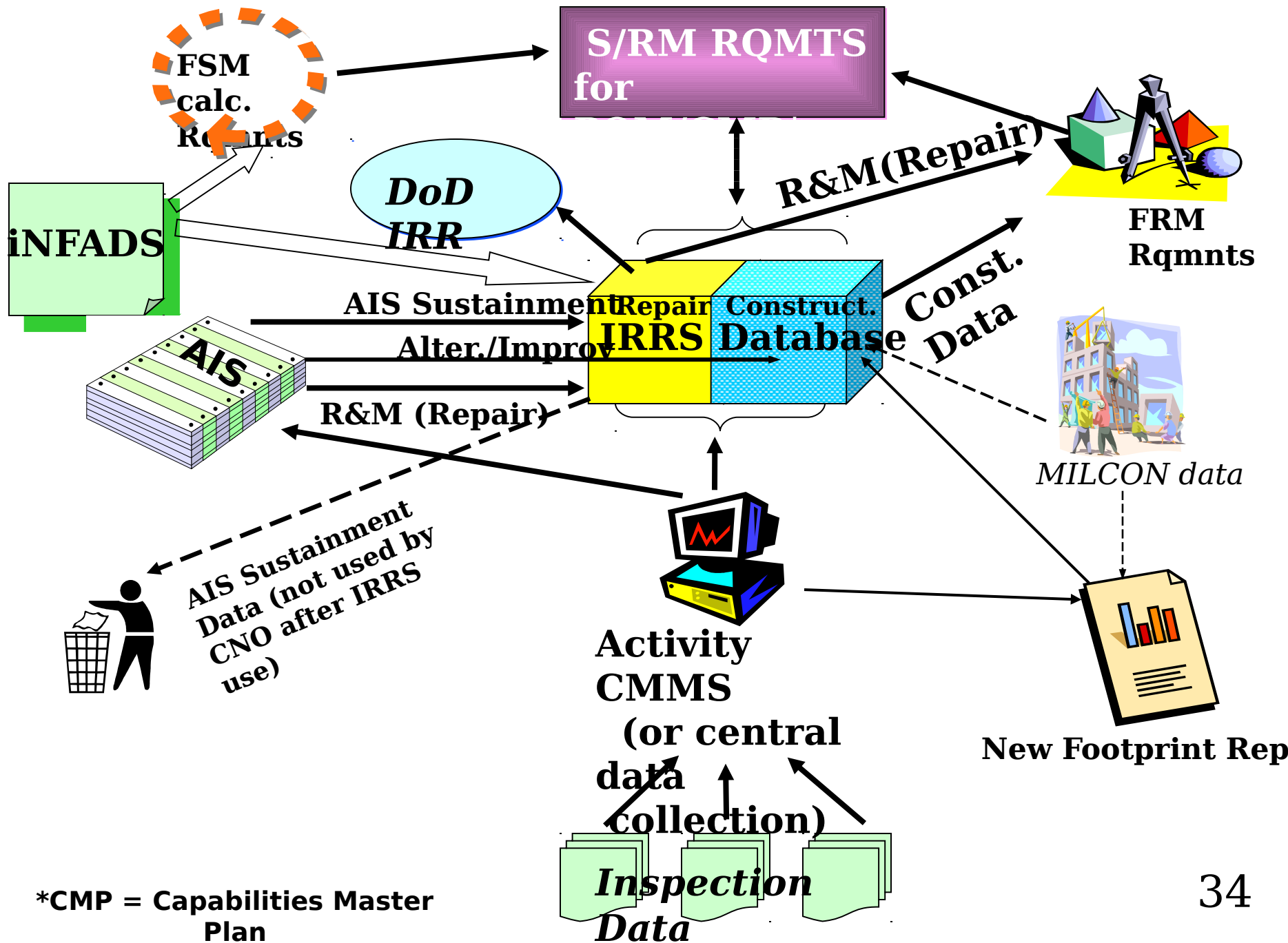
General Updates Required for all PW CACs

- **Overall review of all CACs at this time makes sense. Most PW CAC Descriptions** have been updated. However Units of Measure still need work and since a NAVCOMPT Manual change will NOT be issued, introductory Manual verbage will NOT be corrected (see next slide for more revisions).

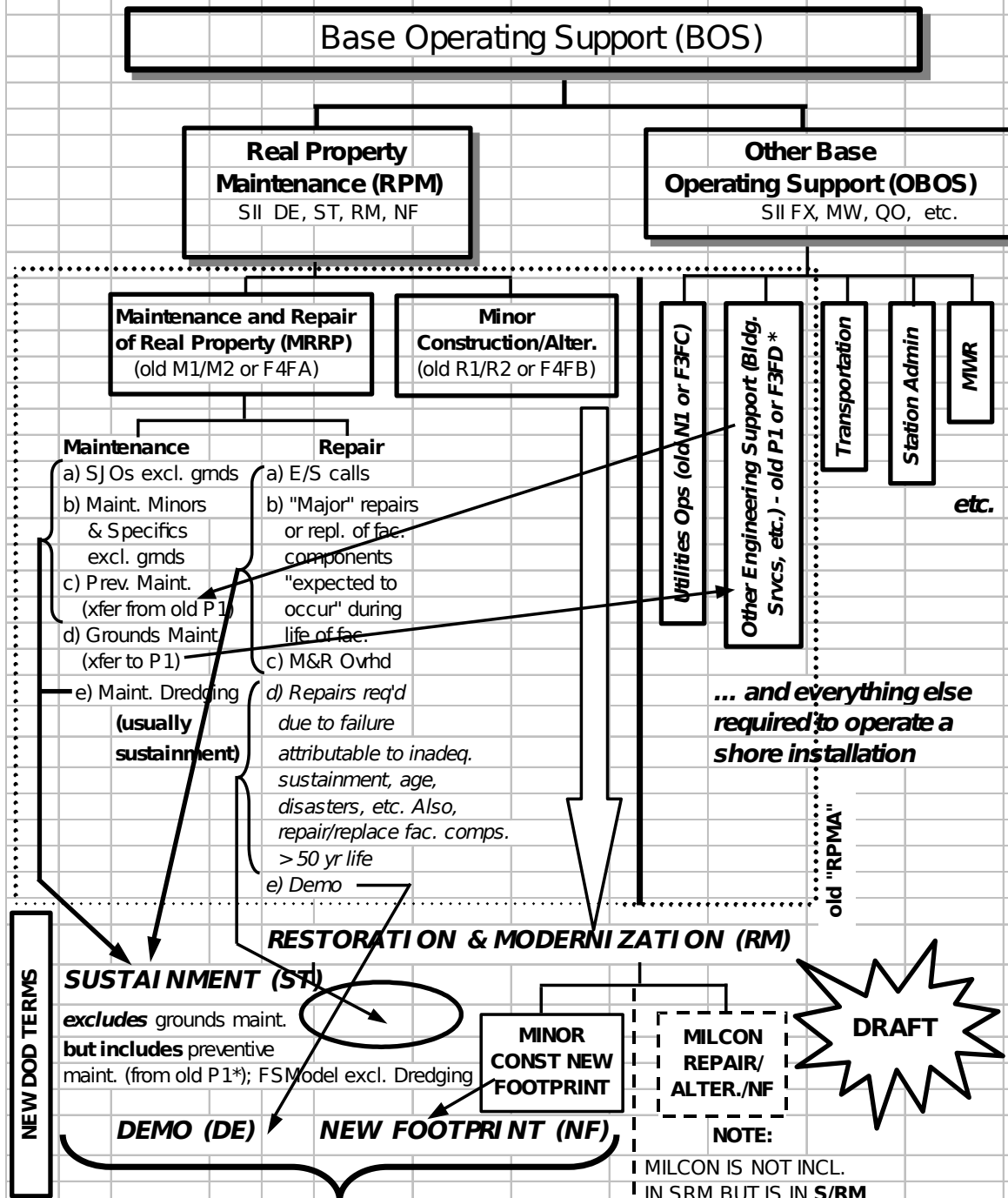
NOTE: BQ folks have made significant revisions and additions to BQ CACs and descriptions as well as Category Codes.

Recommended Change in Utility Systems M&R Cost Accounting

- NAVCOMPT Manual currently requires M&R costs for large heating (greater than 750,000 BTUs) and A/C systems (greater than 5 tons) serving one facility and plants serving several facilities be charged to 76XX series CACs (in IC 17) rather than the CAC and IC associated with prime use of facility
- All other major facility M&R costs are charged to CAC and IC associated with prime use of facility
- **Under SRM, M&R costs for systems serving only one facility are no longer considered a “utility” (IC 17), but will be charged to the facility the system serves**



NAVY TRANSITION TO SUSTAINMENT, RESTORATION and MODERNIZATION

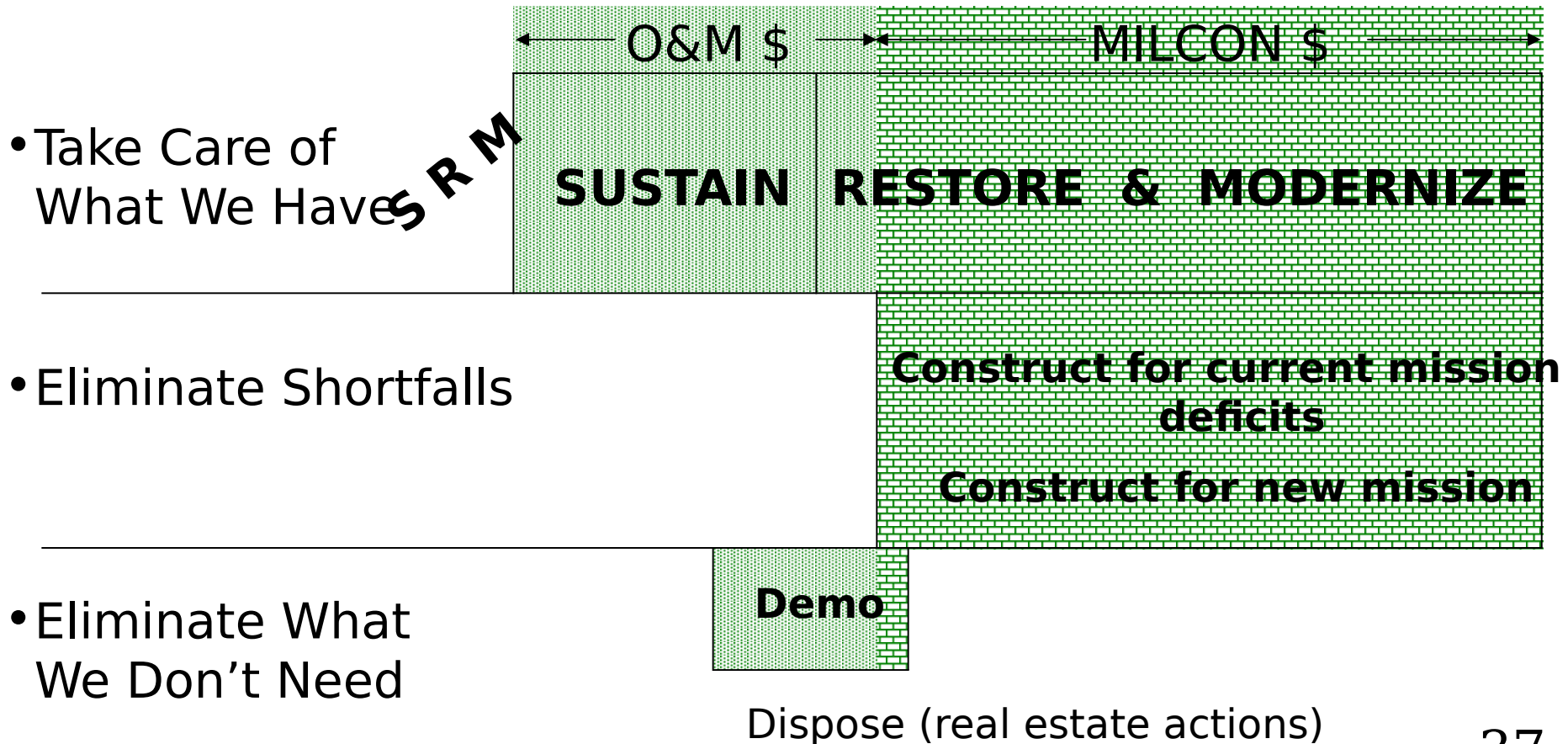


BACKUP ARMY S/RM SLIDES

Managing Army Facilities

Responsibilities

Source of Funds



SRM

Sustainment, Restoration & Modernization

SRM Definitions

- Sustainment: maintains facilities in status quo condition
- Restoration: improves facilities to current standards
- Modernization: adapts facilities to meet new standards

SRM Requirements Generation --
Sustainment (O&M \$): AIM-HI generated using FSM methodology

(inventory x sustain cost factor x location cost factor x inflation cost factor)

- **Restoration** (O&M and MILCON \$): The cost to improve quality to C-2 from ISR

- **Modernization** (O&M and MILCON \$): The cost to recapitalize facilities at a 67-year rate and [PRV/67]

ISR also used to:

Identify facility conditions
 Validate MILCON requirements

MILCON: Military Construction appropriation

AIM-HI: Army Installation Management,
 Headquarters Information

FSM: Facilities Sustainment Model

PRV: Plant Replacement Value

DPG: Defense Planning Guidance

ISR: Installation Status Report

DPG says
Full Sustainment

DPG says
Raise to C-2 by 2010

DPG says
67 year rate by 2007

Sustainment, Restoration & Modernization

- **SRM** dollars sustain, restore and modernize facilities
 - **S**ustainment maintains facilities at status quo
 - **R**estoration improves facilities to current standard
 - **M**odernization adapts facilities to meet new standards
- **Recapitalization** occurs only on existing facilities & includes both Restoration & Modernization (R&M) requirements
- **Defense Planning Guidance:**
 - Fund existing facilities at a 67 year rate by 2007 (**Modernization**)
 - Restoring the readiness of existing facilities to at least C-2 status, on average, by the end of FY 2010 (**Restoration**)
 - **Army Facility Strategy** accomplishes this 39 by bringing selected facilities to C-1, which will